Wednesday, 6/7/2006 12:00:52 PM

Kim Johnston

**Process Sheet** 

Customer

: CU-DAR001 Dart Helicopters Services

Type

Job Number **Estimate Number**  : 27433

: 10716

P.O. Number This Issue

: NIA

: 6/7/2006

Prsht Rev. : MIA First Issue

**Previous Run** Written By

Checked & Approved By

Comment

: 27413

: MACHINED PARTS

S.O. No. : MIA

**Drawing Name** 

Part Number

**Drawing Number** 

: D3121241 : D3121 REV C2

: BEARING ASSEMBLY

Project Number : N/A

**Drawing Revision** 

Material **Due Date** 

: 6/14/2006

Qty:

20 Um:

Each

20

20

20

**Additional Product** 

Job Number:



Seq. #:

Description: **DELRIN ROUND BAR 1,25"** 

MDELRINR12500 1.0



Comment: Qty.:

0.0546 f(s)/Unit Total:

1.0920 f(s)

. Material: Ø1.25 Delrin Rod

(M-DELRIN-R1.2500)Identify as D3121-25

Batch: 19100510 M101018 HARDINGE 2.0

HARDINGE CNC LATHE SMALL



Comment: HARDINGE CNC LATHE SMALL

1-Turn D3121-25 Cap as per Folio FA387

2-Deburr

QC2

INSPECT PARTS AS THEY COME OFF MACHINE





Comment: INSPECT PARTS AS THEY COME OFF MACHINE

QC8

SECOND CHECK

Comment: SECOND CHECK

5.0 D312123

3.0

4.0

Bearing

Comment: Qty.:

1.0000 Each(s)/Unit

Total:

20.0000 Each(s)

Pick:

**Qty Part Number** 1 D3121-23

Description

Batch

Bearing

W/O:		WORK ORDER CHANGES									
DATE STEP		PRO	OCEDURE CHAN	IGE	Ву	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector		
									į.		
	-										
NCR:			WORK ORDE	R NON-CONFORMANO	CE (NCF	R)		<del></del>			
		Description of NC	Description of NC Corrective Action Section B		Verifie	cation	Approval	Approva			
DATE	STEP	Section A	Initial Design Mgr	Action Description  Design Mgr	Sign 8 Date		on C	Design Mgr	QC Inspecto		
		•									
	i I		1								

Part No:	PAR #:	Fault Category:	NCR:	Yes No <b>DQA</b> :	Date:	
NOTE: Date & initial all entries				QA: N/C Closed:	Date:	

Data: Wednesday, 6/7/2006 12:00:53 PM Kim Johnston User: **Process Sheet Drawing Name: BEARING ASSEMBLY** ' Customer: CU-DAR001 Dart Helicopters Services Job Number: 27433 Part Number: D3121241 Job Number: Seq. #: Description: **Machine Or Operation:** SMALL & MEDIUM FAB RESOURCE 1 SMALL FAB 1 6.0 810 Comment: SMALL & MEDIUM FAB RESOURCE 1 1-Press D3121-23 Bearing into D3121-25 Cap as per Dwg D3121 INSPECT WORK TO CURRENT STEP QC5 7.0 Comment: INSPECT WORK TO CURRENT STEP 8.0 PACKAGING 1 PACKAGING RESOURCE #1 Comment: PACKAGING RESOURCE #1 Identify and Stock Location: DOCUMENT CONTROL DC 9.0 Comment: DOCUMENT CONTROL Nove 100/28 Inspection Level 21 Job Completion

Form: rprocess

Page 2

W/O:		WORK ORDER CHANGES								
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector			
		.*								

NCR: 27	1432	W	ORK OR	DER NON-CONFORMANCI	E (NCR)			
		Description of NC		Corrective Action Section B		Verification	Approval	Approval
DATE	STEP	Section A	Initial Design Mgr	Action Description  Design Mgr	Sign & Date	Section C	Design Mgr	QC Inspector
		SX 03/21-25 CAP - clamaged when bearing was inserted	B	Scrapi destroy i replace -25 caps ensure good fit, i no cap damage.	SAV		B	
66-06-21	6-0	When bearing was inserted	OCEAN	-25 caps. ensure good	95'06:27	<i>-</i>	OSPUR	
				+ F, & no cap damage.		06-0627		06 06 R1
		1x53121-12415140	8	destroy bearing.	. 1		A.	
06-06-27	60	Ban-ingdamaged Len CAP changed.	Dagerd		M		depus	
Jede P	0.	CAP changed.	0% 13		09/04/2	060627		Cu. 0627
	1							

Part No: <u>D3121-25</u>

PAR #: NA

Fault Category: Polyton Ass" ned & Shart

NCR: Yes No

DQA: 📐

Date: <u>06/06/</u>

NOTE: Date & initial all entries

QA: N/C Closed:

Date: 06.06.28

DART AEROSPACE LTD	Work Order:	27433
Description: Cap	Part Number:	D3121-25
Inspection Dwg: D3121 Rev: C2		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X	First Article		Prototype
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Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.315	+/-0.010	.310	<b>/</b>	-		
Ø1.024	+/-0.010	1,024	V			
Ø0.838	+/-0.002	.837		,		
R0.063	+/-0.010	, OG3	<b>/</b>			
R0.010	+/-0.010	-010				
0.230	+/-0.001	, 230	V			
Ø0.865	+/-0.001	<i>.</i> &64				
			·			
			*		****	:
						,
					Abit	
		7.1				

Measured by: MS	Audited by:	Prototype Approval:	N/A
Date: Owlow 15	Date: 06(06/15	Date:	N/A

Rev	Date	Change		Revised by	Approved
Α	04.04.20	New Issue	(P/O D3121-241)	KJ/RF	

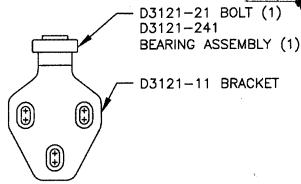




DESIG	"#	DRAWN BY	DART AEROSPACE LT HAWKESBURY, ONTARIO, CANADA	D
CHEC	KED #	APPROVED	DRAWING NO. D3121 SHE	REV. C ET 1 OF 10
DATE			TITLE	SCALE
04.0	2.17		BRACKET ASSEMBLY	1:2
Α		02.04.15	NEW ISSUE	
R		03.01.16	ADD RIDGES; ADD MAT'L PROP; I	FIX P/N

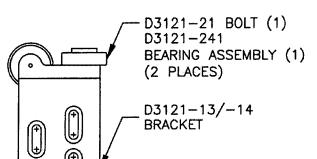
# RELEASED

1	DATE		III LLL.
	04.0	2.17	BRACKET ASSEMBLY 1:2
	Α	02.04.15	NEW ISSUE
	В	03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146
	C	u 04.02.17	ADD CLEARANCE; USE -241 BEARING
	C I	OF 04.03.26	397 WAS 4.00; 6.11 WAS 6.14
j	CZ	A TH 04.04.26	0.230 WAS 0.238



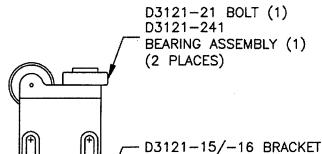
#### D3121-041 BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-33)



#### D3121-043 (SHOWN) / D3121-044 (OPPOSITE) BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-37/-38)



#### D3121-045 (SHOWN) / D3121-046 (OPPOSITE) BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000035/-36)

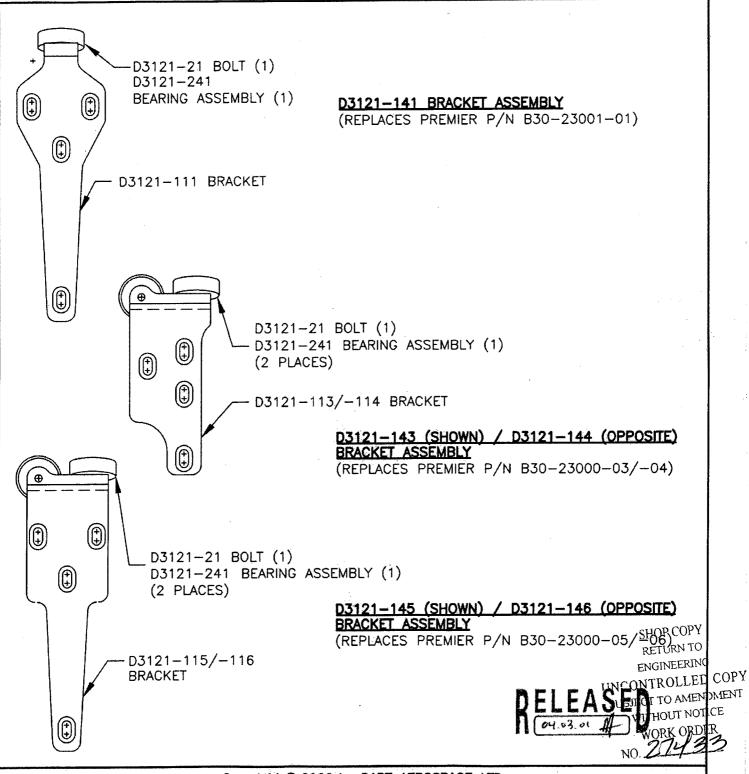
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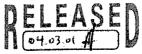
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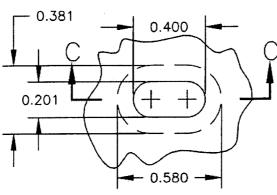


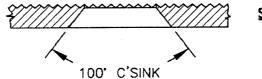


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#	I at	D3121	SHEET 3 OF 10
DATE		TITLE	SCALE
04.02.17		BRACKET ASSEMBLY	1:1



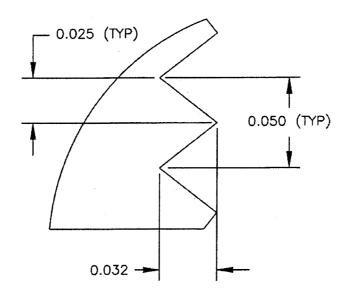
### DETAIL A: SLOT DETAIL SCALE 2:1 VIEW ROTATED





SECTION C-C

## DETAIL B: RIDGE DETAIL PARTIAL SECTION SCALE 1:20



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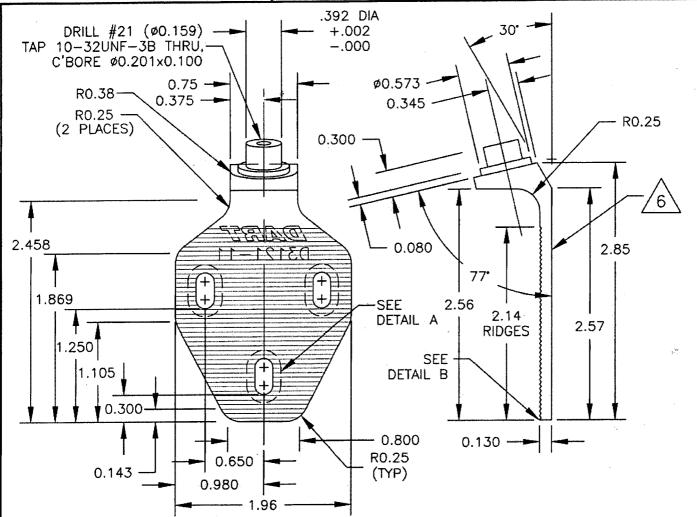
WORK ORDER

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DATE		TITLE	SCALE	
04.02.17		BRACKET ASSEMBLY	1:1	



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#### D3121-11 BRACKET

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi

MIN YIELD TENSILE = 100 ksi

2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

3) ALL DIMENSIONS ARE IN INCHES

- BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN

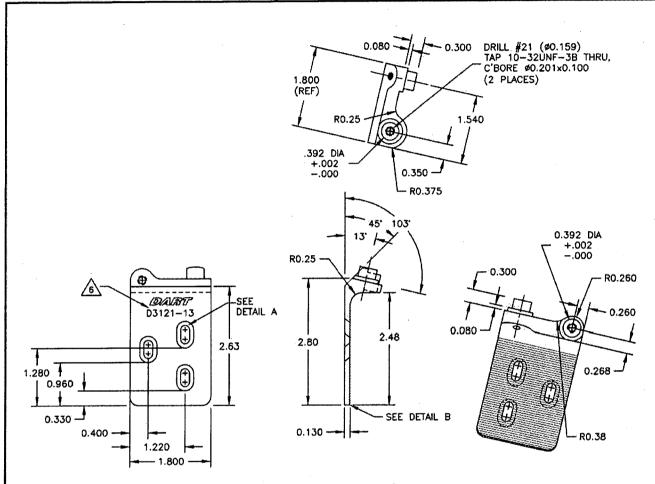
6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005







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	af	#	D3121	SHEET 5 OF 10	
	DATE		TITLE	SCALE	
	04.02.18		BRACKET ASSEMBLY	. 1:2	



D3121-13 BRACKET (SHOWN)
D3121-14 BRACKET (OPPOSITE)

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi

- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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WORK ORDER NO. 21433

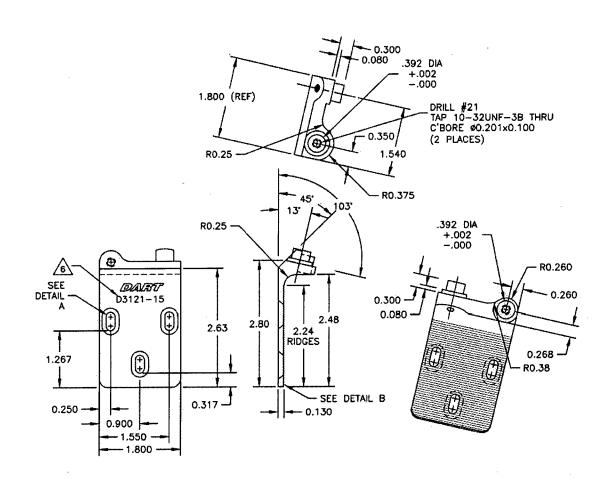


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	#	#	D3121	SHEET 6 OF 10	
	DATE		TITLE	SCALE	
	04.02.18		BRACKET ASSEMBLY	1:2	



D3121-15 BRACKET (SHOWN)
D3121-16 BRACKET (OPPOSITE)

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi

MIN YIELD TENSILE = 100 ksi

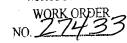
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

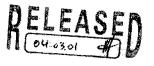
3) ALL DIMENSIONS ARE IN INCHES

4) BREAK ALL SHARP EDGES 0.005 TO 0.015 5) ENGRAVE DART P/N AND LOGO AS SHOWN

6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

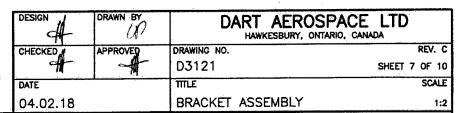
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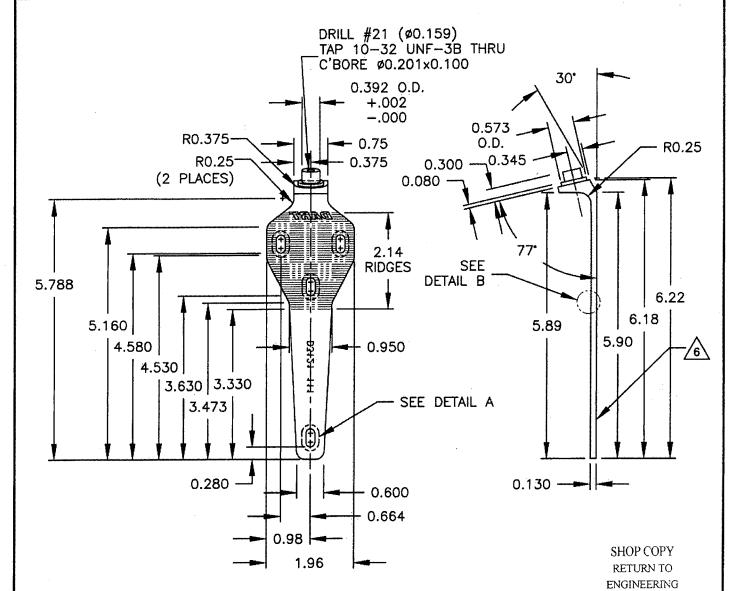




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D3121-111 BRACKET

1) REPLACES PREMIER P/N B32-23001-11

2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi

MIN YIELD TENSILE = 100 ksi

TOLERANCES ARE PER DART QSI 018 UNLESS OTHEWISE NOTED

ALL DIMENSIONS ARE IN INCHES

BREAK ALL SHARP EDGES 0.005 TO 0.015

ENGRAVE DART P/N & LOGO IN AREAS SHOWN HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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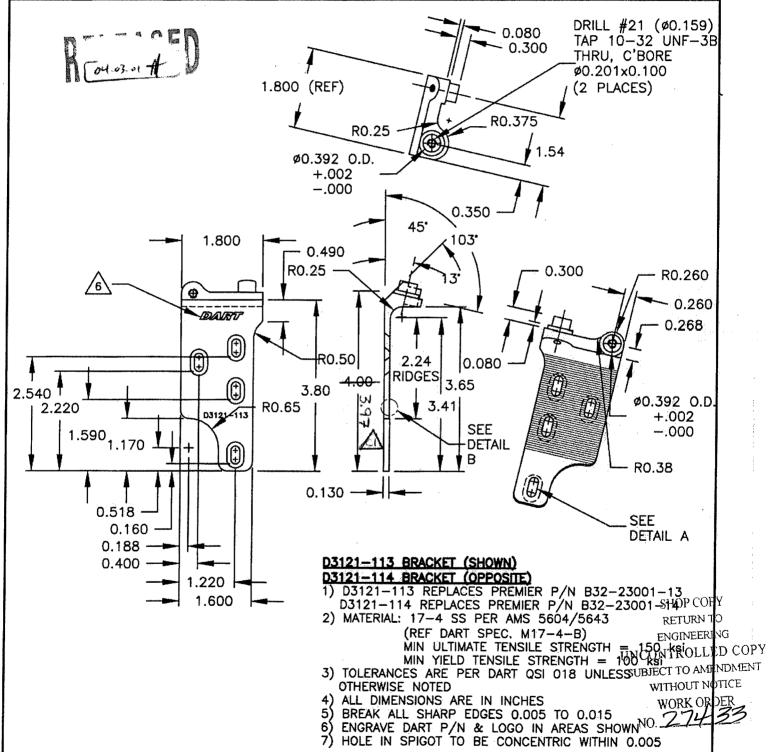


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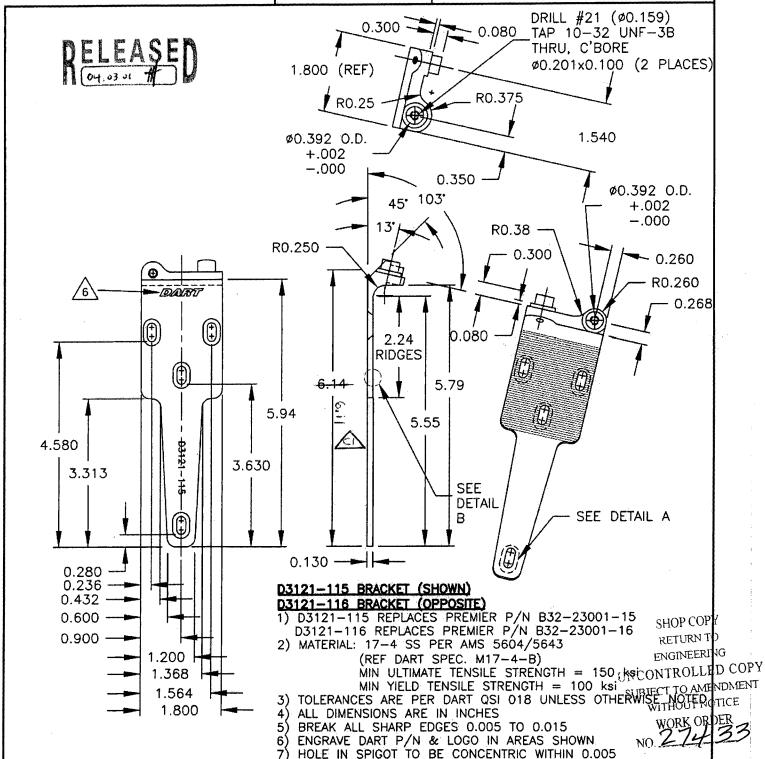
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	DATE	<u> </u>	TITLE		SCALE
	04.02.18		BRACKET AS	SEMBLY	1:2







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į	01/50//50		HAWKESBURY, ONTARIO, CANADA  DRAWING NO. REV.	
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į	DATE	<u> </u>	TITLE	SCALE
	04.02.18		BRACKET ASSEMBLY	1:2







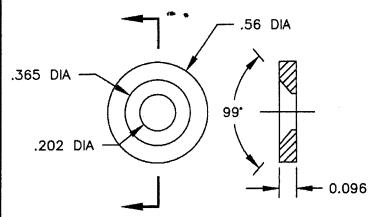
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1	#	D3121	SHEET	10 OF	10
DATE		TITLE		SC	CALE
04.02.17		BRACKET AS	SEMBLY		1:1

NONE

OTHERWISE NOTED

0.375 -

FINISH:



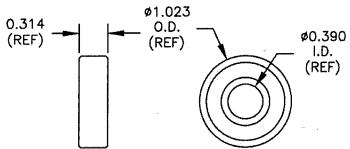
D3121-17 WASHER (SCALE 2:1)

1) REPLACES PREMIER P/N B32-23001-17 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)

3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

ALL DIMENSIONS ARE IN INCHES

5) BREAK ALL SHARP EDGES 0.005 TO 0.015



D3121-19 BEARING (SCALE 1:1)

1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM FAFNIR P/N 9100KDD

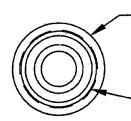
2) ALL DIMENSIONS ARE IN INCHÉS



D3121-23 BEARING (SCALE 1:1)

1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z OR KML P/N 6900-ZZ

2) ALL DIMENSIONS ARE IN INCHES



D3121-21 BOLT (SCALE 1:1) 1) MATERIAL: AISI 303 SS HEX. ANNEALED (REF DART SPEC. M303H0.500) TOLERANCES ARE PER DART QSI 018 UNLESS

TAP 10-32

UNF-3A

- 0.050 TO 0.060

0.080

ALL DIMENSIONS ARE IN INCHES 5) BREAK ALL SHARP EDGES 0.005 TO 0.015

0.315 0.230 -0.238±0.001 1.024 0.838 0.865  $\pm 0.002$ ±0.001 R0.063 R0.010 -

D3121-25 CAP (SCALE 1:1)

1) MATERIAL: DELRIN ROD, Ø1.25

(REF DART SPEC. M-DELRIN-R1.250)

2) TOLERANCES ARE PER DART QSI 018 SHN LESS OTHERWISE NOTED

3) ALL DIMENSIONS ARE IN INCHES

RETURN TO ENGINEERING

D3Y21-25 CAPBIECT TO AMENDMENT WITHOUT NOTICE WORK, OBA

NO. 6/2 D3121-23 BEARING

D3121-241 BEARING ASSEBLY (SCALE 1:1)